=> dis ibib abs l4 1-5

L4 ANSWER 1 OF 5 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

ACCESSION NUMBER: 95:62336 AGRICOLA
DOCUMENT NUMBER: IND20483313
TITLE: Genes from Lycopersicon chmielewskii affecting tomato quality during fruit ripening.
AUTHOR(S): Azanza, F.; Kim, D.; Tanksley, S.D.; Juvik, J.A.
CORPORATE SOURCE: University of Illinois, Urbana, IL.
AVAILABILITY: DNAL (442.8 Z8)
SOURCE: Theoretical and applied genetics, Aug 1995. Vol. 91, No. 3. p. 495-504
Publisher: Berlin; Springer-Verlag
CODEN: THAGA6; ISSN: 0040-5752
NOTE: Includes references
PUB. COUNTRY: West Berlin
DOCUMENT TYPE: Article
FILE SEGMENT: Non-U.S. Imprint other than FAO
LANGUAGE: English

AB Three chromosomal segments from the wild tomato, L. chmielewskii, introgressed into the L. esculentum genome have been previously mapped to the middle and terminal regions of chromosome 7 (7M, 7T respectively), and to the terminal region of chromosome 10 (10T). The present study was designed to investigate the physiological mechanisms controlled by the 7M and 7T segments on tomato soluble solids (SS) and pH, and their genetic regulation during fruit development. The effects of 7M and 7T were studied in 64 BC(2)F(5) backcross inbred lines (BILs) developed from a cross between LA 1501 (an L. esculentum line containing the 7M and 7T fragments from L. chmielewskii), and VF145B-7879 (a processing cultivar). BILs were classified into four homozygous genotypes with respect to the introgressed segments based on RFLP analysis, and evaluated for fruit chemical characteristics at different harvest stages. Gene(s) in the 7M fragment **reduce fruit water** uptake during ripening increasing pH, sugars, and SS concentration. Gene(s) in the 7T fragment were found to be associated with higher mature green fruit starch concentration and red ripe fruit weight. Comparisons between tomatoes ripened on or off the vine suggest that the physiological mechanisms influenced by the L. chmielewskii alleles are dependent on the translocation of photosynthates and water during fruit ripening.

L4 ANSWER 2 OF 5 CABA COPYRIGHT 2004 CABI on STN

ACCESSION NUMBER: 1998:1229 CABA
DOCUMENT NUMBER: 19970311628
TITLE: Salinity effects on some postharvest quality factors in a commercial tomato **hybrid**
AUTHOR: Balibrea, M. E.; Cayuela, E.; Artes, F.; Perez-Alfocea, F.
CORPORATE SOURCE: Department of Irrigation and Salinity, Centro de Edafologia y Biologia Aplicada del Segura, CSIC, P.O. Box 4195, E-30080-Murcia, Spain.
SOURCE: Journal of Horticultural Science, (1997) Vol. 72, No. 6, pp. 885-892. 19 ref.
ISSN: 0022-1589
DOCUMENT TYPE: Journal
LANGUAGE: English
ENTRY DATE: Entered STN: 19980113

Last Updated on STN: 19980113

AB The commercial tomato F1 **hybrid** Radja (GC-793) was cultivated in soil beds at low (control), moderate (70 mM NaCl) and high (140 mM) salinities under greenhouse conditions for 14 weeks. The effects of different salinities on fruit weight and major chemical components determining fruit quality were assessed. Red-ripe fruits were harvested to determine fruit weight, size and composition. The water content and mineral composition were determined in whole fruits; the carbohydrate, organic acid and soluble protein contents were determined in pericarp tissue. Moderate salinity **reduced** the fresh and dry fruit weights by only 10 and 13%, respectively, while high salinity **reduced** them by 40 and 33% compared with control **fruits**. The **water** content was not significantly affected by salinity. Thus, fruit weight does not seem to be **limited** by the water supply under these conditions. Fruit Na content significantly increased only at high salinity, while fruit Ca and Mg contents were not affected. K content, which represents more than 70% of the mineral composition, tended to increase with salinity. The citric acid content slightly increased at moderate salinity, while both citric and malic acid contents were **reduced** at high salinity, increasing the citric:malic ratio. Fruit pH values were always about 4. The low content of soluble proteins was **reduced** by high salinity, while moderate salinity increased it. In pericarp tissue of fruits in the moderate salinity treatment, the fructose and glucose contents were three times and twice as high as in control and high salinity treatments. Starch, sucrose and myo-inositol also accumulated under salinity. Hexoses and starch accounted for 20, 66 and 42% of the pericarp dry matter in control, moderate and high salinity treatments, respectively.

L4 ANSWER 3 OF 5 CABA COPYRIGHT 2004 CABI on STN

ACCESSION NUMBER: 95:178068 CABA
DOCUMENT NUMBER: 19951611170
TITLE: Genes from Lycopersicon chmielewskii affecting tomato quality during fruit ripening
AUTHOR: Azanza, F.; Kim, D.; Tanksley, S. D.; Juvik, J. A.
CORPORATE SOURCE: Department of Horticulture, University of Illinois, Urbana, IL 61801, USA.
SOURCE: Theoretical and Applied Genetics, (1995) Vol. 91, No. 3, pp. 495-504. 24 ref.
ISSN: 0040-5752
DOCUMENT TYPE: Journal
LANGUAGE: English
ENTRY DATE: Entered STN: 19951020
Last Updated on STN: 19951020

AB Three chromosomal segments from the wild tomato L. chmielewskii introgressed into the L. esculentum genome were previously mapped to the middle and terminal regions of chromosome 7 (7M and 7T, respectively), and to the terminal region of chromosome 10 (10T). The present study was designed to investigate the physiological mechanisms controlled by the 7M and 7T segments on tomato soluble solids (SS) and pH, and their genetic regulation during fruit development. The effects of 7M and 7T were studied in 64 BC2F5 backcross inbred lines (BILs) developed from a cross between LA1501 (an L. esculentum line containing the 7M and 7T fragments from L. chmielewskii), and VF145B-7879 (a processing cultivar). BILs were classified into four homozygous genotypes with respect to the introgressed segments based on RFLP analysis, and evaluated for fruit chemical characteristics at different harvest stages. Gene(s) in the 7M fragment **reduced fruit water** uptake during ripening, thereby increasing pH, and concentrations of sugars and SS. Gene(s) in the

7T fragment were found to be associated with higher mature green fruit starch concentration and red ripe fruit weight. Comparisons between tomatoes ripened on or off the vine suggested that the physiological mechanisms are dependent on the translocation of photosynthates and water during fruit ripening.

L4 ANSWER 4 OF 5 Elsevier BIOBASE COPYRIGHT 2004 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1997264768 ESBIOBASE
TITLE: Salinity effects on some postharvest quality factors in a commercial tomato **hybrid**
AUTHOR: Balibrea M.E.; Cayuela E.; Artes F.; Perez-Alfocea F.
CORPORATE SOURCE: M.E. Balibrea, Dept. of Irrigation and Salinity, Ctr. Edafologia/Biol. Apl. del Seg., CSIC, P.O. Box 4195, E-30080-Murcia, Spain.
SOURCE: Journal of Horticultural Science, (1997), 72/6 (885-892), 19 reference(s)
CODEN: JHSCA8 ISSN: 0022-1589
DOCUMENT TYPE: Journal; Article
COUNTRY: United Kingdom
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The commercial F1 tomato **hybrid** (**Lycopersicon esculentum** L. Mill) cv. Radja (GC-793) was cultivated with low (control), moderate (70 mM NaCl) and high (140 mM) salinities under greenhouse conditions for 14 weeks. The effects of different salinity levels on fruit weight and major chemical components determining fruit quality were assessed. Red ripe fruits were harvested to determine fruit weight, size and composition. The water content and mineral composition were determined in whole fruits; the carbohydrate, organic acid and soluble protein contents were analyzed in pericarp tissue. Moderate salinity **reduced** the fresh and dry fruit weights by only 10 and 13%, respectively, while high salinity **reduced** them by 40 and 33% compared with control **fruits**. The **water** content was not significantly affected by salinity. Thus, fruit weight does not seem to be **limited** by the water supply under these conditions. The amount of Na.sup.+ significantly increased only at high salinity, while Ca.sup.2.sup.+ and Mg.sup.2.sup.+ contents were not affected. K.sup.+ content, which represents more than 70% of the mineral composition, tends to increase with salinity. The citric acid content slightly increased at moderate salinity, while both citric and malic acids contents were **reduced** at high salinity, increasing the citric/malic ratio. The pH values were always about 4. The low content in soluble proteins was **reduced** by high salinity, while moderate salinity increased it. In pericarp tissue of moderately treated fruits, the fructose and glucose contents were three times and twice as high as control and highly salinized-ones. Starch, sucrose and myo-inositol also accumulated under salinity. Hexoses and starch accounted for 20, 66 and 42% of the pericarp dry matter in control, moderate and highly salinized fruits, respectively.

L4 ANSWER 5 OF 5 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 97:846265 SCISEARCH
THE GENUINE ARTICLE: YF311
TITLE: Salinity effects on some postharvest quality factors in a commercial tomato **hybrid**
AUTHOR: Balibrea M E (Reprint); Cayuela E; Artes F; PerezAlfocea F
CORPORATE SOURCE: CSIC, CTR EDAFOL & BIOL APLICADA DEL SEGURA, DEPT IRRIGAT & SALIN, POB 4195, E-30080 MURCIA, SPAIN (Reprint); CSIC,

CTR EDAFOL & BIOL APLICADA DEL SEGURA, DEPT FOOD SCI & TECHNOL, E-30080 MURCIA, SPAIN
COUNTRY OF AUTHOR: SPAIN
SOURCE: JOURNAL OF HORTICULTURAL SCIENCE, (NOV 1997) Vol. 72, No. 6, pp. 885-892.
Publisher: HEADLEY BROTHERS LTD, INVICTA PRESS, ASHFORD, KENT, ENGLAND TN24 8HH.
ISSN: 0022-1589.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: AGRI
LANGUAGE: English
REFERENCE COUNT: 19

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The commercial F1 tomato **hybrid** (**Lycopersicon esculentum** L. Mill) cv. Radja (GC-793) was cultivated with low (control), moderate (70 mM NaCl) and high (140 mM) salinities under greenhouse conditions for 14 weeks. The effects of different salinity levels on fruit weight and major chemical components determining fruit quality were assessed. Red ripe fruits were harvested to determine fruit weight, size and composition. The water content and mineral composition were determined in whole fruits; the carbohydrate, organic acid and soluble protein contents were analyzed in pericarp tissue. Moderate salinity **reduced** the fresh and dry fruit weights by only 10 and 13%, respectively, while high salinity **reduced** them by 40 and 33% compared with control **fruits**. The **water** content was not significantly affected by salinity. Thus, fruit weight does not seem to be **limited** by the water supply under these conditions. The amount of Naf significantly increased only at high salinity, while Ca2+ and Mg2+ contents were not affected. K+ content, which represents more than 70% of the mineral composition, tends to increase with salinity. The citric acid content slightly increased at moderate salinity, while both citric and malic acids contents were **reduced** at high salinity, increasing the citric/malic ratio. The pH values were always about 4. The low content in soluble proteins was **reduced** by high salinity, while moderate salinity increased it. In pericarp tissue of moderately treated fruits, the fructose and glucose contents were three times and twice as high as control and highly salinized-ones. Starch, sucrose and myo-inositol also accumulated under salinity. Hexoses and starch accounted for 20, 66 and 42% of the pericarp dry matter in control, moderate and highly salinized fruits, respectively.

```
=> s tomato or lycopersicon
L1      110072 TOMATO OR LYCOPERSICON

=> s dry(w)matter(w)content
L2        5793 DRY(W) MATTER(W) CONTENT

=> s l1 and l2
L3         328 L1 AND L2

=> s l3 and breed?
L4          42 L3 AND BREED?

=> d l4 1-42 ti so au py
```

L4 ANSWER 1 OF 42 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

TI Fine mapping of QTLs of chromosome 2 affecting the fruit architecture and composition of **tomato.**

SO Molecular breeding : new strategies in plant improvement, p. 1-14
ISSN: 1380-3743

AU Lecomte, L.; Saliba-Colombani, V.; Gautier, A.; Gomez-Jimenez, M.C.; Duffe, P.; Buret, M.; Causse, M.

L4 ANSWER 2 OF 42 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN

TI **Breeding** to increase the colour and **dry matter content** of the **tomato** for processing
Az ipari paradicsom szin es szarazanyagtartalmanak fokozasara iranyulo nemesitesi munkank

SO Budapest Magyar Tud Akad Agrartud Osztalyanak Kozlemeny, Dec 1970 Vol. 29, No. 3, pp. 219-225.

AU Meszoly, Gy

PY 1970

L4 ANSWER 3 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Parthenocarpy restores fruitfulness in sterile triploid (3x) tomatoes artificially obtained by crossing 4xX2x somaclones.

SO Journal of Horticultural Science & Biotechnology, (March 2004) Vol. 79, No. 2, pp. 322-328. print.
ISSN: 1462-0316 (ISSN print).

AU Habashy, A. A.; Testa, G.; Mosconi, P.; Caccia, R.; Mazzucato, A.; Santange-Lo, E.; Soressi, G. P. [Reprint Author]

PY 2004

L4 ANSWER 4 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI **Tomato breeding** for salinity tolerance. II. Assessment and nature of tolerance in some domestic and wild accessions.

SO Egyptian Journal of Horticulture, (1999) Vol. 26, No. 3, pp. 357-390. print.
CODEN: EJHCAE. ISSN: 0301-8164.

AU Nassar, H. H. [Reprint author]; Hassan, A. A.; Barakat, M. A. [Reprint author]; Tolba, M. S. [Reprint author]

PY 1999

L4 ANSWER 5 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Heterosis and inbreeding depression for acidity total soluble solids, reducing sugar and **dry matter content** in **tomato** (**Lycopersicon** esculentum Mill.).

SO Advances in Plant Sciences, (Dec., 1998) Vol. 11, No. 2, pp. 105-110. print.

ISSN: 0970-3586.
AU Shrivastava, Arun Kumar [Reprint author]
PY 1998

L4 ANSWER 6 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI Combining ability analysis for total solube solids, reducing sugars, **dry matter content** and seeds weight in **tomato**: (**Lycopersicon** esculentum Mill.).
SO Advances in Plant Sciences, (Dec., 1998) Vol. 11, No. 2, pp. 17-22. print.
ISSN: 0970-3586.
AU Shrivastava, Arun Kumar [Reprint author]
PY 1998

L4 ANSWER 7 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI INFLUENCE OF PHYSICAL AND BIOCHEMICAL FACTORS ON THE INCIDENCE OF FRUIT BORER HELIOTHIS-ARMIGERA.
SO Journal of Research Punjab Agricultural University, (1982) Vol. 19, No. 1, pp. 31-34.
CODEN: JRPUAF. ISSN: 0048-6019.
AU SINGH D [Reprint author]; SINGH S; BAJAJ K L; KAUR G; GILL C K
PY 1982

L4 ANSWER 8 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI USE OF HETEROSIS THE LEADING DIRECTION IN **BREEDING.**
SO Doklady Vsesoyuznoi Ordena Lenina i Ordena Trudovogo Krasnogo Znameni Akademii Sel'skokhozyaistvennykh Nauk Imeni V I Lenina, (1972) No. 12, pp. 11-12.
AU BREZHNEV D D
PY 1972

L4 ANSWER 9 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Parthenocarpy restores fruitfulness in sterile triploid (3x) tomatoes artificially obtained by crossing 4x x 2x somaclones.
SO Journal of Horticultural Science and Biotechnology, (2004) Vol. 79, No. 2, pp. 322-328. 32 ref. Publisher: Headley Brothers Ltd., The Invicta Press.
ISSN: 1462-0316
AU Habashy, A. A.; Testa, G.; Mosconi, P.; Caccia, R.; Mazzucato, A.; Santangelo, E.; Soressi, G. P.
PY 2004

L4 ANSWER 10 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Chemical evaluation of an indeterminate **tomato** sample collection.
SO Rasteniev"dni Nauki, (2001) Vol. 38, No. 7/10, pp. 370-373. 15 ref.
Publisher: National Centre for Agrarian Sciences in Bulgaria.
ISSN: 0568-465X
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PY 2001

L4 ANSWER 11 OF 42 CABA COPYRIGHT 2004 CABI on STN
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PY 1999

L4 ANSWER 12 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Combining ability analysis for total soluble solids, reducing sugars, **dry matter content** and seeds weight in **tomato.** (**Lycopersicon** esculentum Mill.).
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ISSN: 0970-3586
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PY 1998

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Programet e permiresimit gjenetik te domates.
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PY 1995

L4 ANSWER 14 OF 42 CABA COPYRIGHT 2004 CABI on STN
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PY 1990

L4 ANSWER 15 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Results of producing early forms of **tomato** with increased **dry matter content.**
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Secondary Source: Referativnyi Zhurnal (1990) 9Ya3331
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PY 1990

L4 ANSWER 16 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Brief results of testing **tomato** varieties in Rostov province.
SO Sbornik Nauchnykh Trudov po Prikladnoi Botanike, Genetike i Selektsii, (1989) Vol. 123, pp. 53-57. 3 ref.
ISSN: 0202-3628
AU Skryabina, T. M.
PY 1989

L4 ANSWER 17 OF 42 CABA COPYRIGHT 2004 CABI on STN
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PY 1987

L4 ANSWER 18 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Selecting initial material according to fruit quality in **breeding** tomatoes suitable for mechanical harvesting.
SO Puti povysh. produktiv. posevov ovoshch. kul'tur v Tsentr.-Chernozem. zone, (1984) pp. 61-65.
Secondary Source: Referativnyi Zhurnal (1985) 1.65.276
AU Tibilova, T. S.; Solomatin, M. I.
PY 1984

L4 ANSWER 19 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI A new **tomato** variety.
SO Kartofel' i Ovoshchi, (1984) No. 7, pp. 17-18.
ISSN: 0022-9148
AU Kravchenko, V. A.
PY 1984

L4 ANSWER 20 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Trends and results in **breeding tomato.**
SO Selektsiya i Semenovodstvo, USSR, (1983) No. 1, pp. 7-9.
AU Kravchenko, V. A.
PY 1983

L4 ANSWER 21 OF 42 CABA COPYRIGHT 2004 CABI on STN

TI [Genetic and methodological possibilities of **breeding** for improved vegetable quality].
Genetische und zuchtmethodische Moglichkeiten zur Verbesserung der Gemusequalitat.
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AU Andruscenko, V. K.; Andryushchenko, V. K.
PY 1985

L4 ANSWER 22 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Biological and economic characters of **tomato** varieties introduced into Bulgaria and their use in **breeding.**
SO Byulleten' Vsesoyuznogo Ordena Lenina i Ordena Druzhby Narodov Nauchno-issledovatel'skogo Instituta Rastenievodstva Imeni N. I. Vavilova, (1982) No. 120, pp. 69-71.
AU Krysteva, L.; Kr"steva, L.
PY 1982

L4 ANSWER 23 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Collection and study of local accessions of tomatoes (Lycopersicum esculentum).
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PY 1984

L4 ANSWER 24 OF 42 CABA COPYRIGHT 2004 CABI on STN
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Ocena zawartos[acute]ci skadnikow odzywczych w owocach wybranych odmian pomidora szklarniowego.
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PY 1984

L4 ANSWER 25 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI [Bulgarian **breeding** of tomatoes with a high [beta]-carotene content].
Bulgarische Zuchtung von Tomaten mit hohem [beta]-Karotingehalt.
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PY 1983

L4 ANSWER 26 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Ermak.
SO Kartofel' i Ovoshchi, (1981) No. 10, pp. 40.
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L4 ANSWER 27 OF 42 CABA COPYRIGHT 2004 CABI on STN
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SO Mutation Breeding Newsletter, (1983) No. 23, pp. 6-7. 2 ref.
ISSN: 1011-260X
AU Zagorcheva, L.
PY 1983

L4 ANSWER 28 OF 42 CABA COPYRIGHT 2004 CABI on STN
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SO Tr. VNII selektsii i semenovod. ovoshch. kul'tur, (1980) No. 12, pp. 40-47.
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ISSN: 0048-6019
AU Dilbagh Singh; Surjan Singh; Bajaj, K. L.; Kaur, G.; Gill, C. K.; Singh, D.; Singh, S.
PY 1982

L4 ANSWER 30 OF 42 CABA COPYRIGHT 2004 CABI on STN
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SO UK, Glasshouse Crops Research Institute: Annual report 1978, (1979) pp. 207.
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L4 ANSWER 31 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Some features of **breeding** greenhouse tomatoes resistant to Cladosporium fulvum.
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AU Zaginailo, N. N.; Zaginayilo, N. N.; Sadykina, E. I.; Zaginayilo, N. N.
PY 1979

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Secondary Source: Agricultural Literature of Czechoslovakia (1978) No. 3/4, Abst. 792
AU Vlk, J.
PY 1977

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TI [Present position of vegetable **breeding** in Hungary].
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SO Internationale Zeitschrift der Landwirtschaft, (1978) No. 2, pp. 141-146.
AU Balazs, S.
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L4 ANSWER 34 OF 42 CABA COPYRIGHT 2004 CABI on STN
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Genetikai tenyezok a paradicsom szarazanyag-tartalmanak novelesere iranyulo nemesitesi munkaban.
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PY 1972

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SO Trudy po Prikladnoi Botanike, Genetike i Selektsii, (1975) Vol. 55, No. 2, pp. 70-81. 18 ref.
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PY 1975

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SO Metody uskoreniya selektsii ovoshch. kul'tur, (1975) pp. 99-102.
Publisher: Kolos.
Secondary Source: Referativnyi Zhurnal (1975) 10.55.337
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PY 1975

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PY 1974

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TI The heterosis effect in **tomato breeding** in Apsheron.
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Secondary Source: Referativnyi Zhurnal (1972) 3.55.223
AU Musaev, N. A.; Airapetova, S. A.
PY 1971

L4 ANSWER 39 OF 42 CABA COPYRIGHT 2004 CABI on STN
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SO Nauchni Trudove, Vissh Selskostopanski Institut "Vasil Kolarov", Gradinarstvo, (1971) Vol. 20, No. 2, pp. 101-106. 5 ref.
AU Murtazov, T.; Kartalov, P.; Murtasow, T.; Kartalow, P.
PY 1971

L4 ANSWER 40 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI [The genetic basis for the solution of some current problems in **tomato breeding**].
Nehany idoszeru paradicsomnemesitesi feladat megoldasanak genetikai alapjai.
SO Agrartudomanyi Kozlemenyek, (1971) Vol. 30, No. 4, pp. 579-584.
AU Farkas, J.; Andrasfalvy, A.
PY 1971

L4 ANSWER 41 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI [**Breeding** and establishing the **tomato** line 54/66].
Crearea liniei de tomate 54/66 si stabilirea agrotehnicii ei.
SO Analele Institutului de Cercetari pentru Legumocultura si Floricultura, (1971) Vol. 1, pp. 85-97. 5 ref.
AU Otvos, Z.
PY 1971

L4 ANSWER 42 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI The use of heterosis, a leading trend in plant **breeding.**
SO Doklady Vsesoyuznoi Ordena Lenina Akademii Sel'skokhozyaistvennykh Nauk Imeni V.N. Lenina, (1972) No. 12, pp. 11-12.
AU Brezhnev, D. D.
PY 1972

=> d l4 2,5,6,12,15,19,34,41 ti au so py abs

L4 ANSWER 2 OF 42 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States

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TI **Breeding** to increase the colour and **dry matter content** of the **tomato** for processing
Az ipari paradicsom szin es szarazanyagtartalmanak fokozasara iranyulo nemesitesi munkank

AU Meszoly, Gy

SO Budapest Magyar Tud Akad Agrartud Osztalyanak Kozlemeny, Dec 1970 Vol. 29, No. 3, pp. 219-225.

PY 1970

L4 ANSWER 5 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Heterosis and inbreeding depression for acidity total soluble solids, reducing sugar and **dry matter content** in **tomato** (**Lycopersicon** esculentum Mill.).

AU Shrivastava, Arun Kumar [Reprint author]

SO Advances in Plant Sciences, (Dec., 1998) Vol. 11, No. 2, pp. 105-110. print.
ISSN: 0970-3586.

PY 1998

AB Nine superior varieties of **tomato** were crossed as per diallel design. Performance of nine parents and their 36 F1's and 36 F2 's was studied to assess the manifestation of heterosis and inbreeding depression for quality traits during winter season, 1992. The crosses showing maximum heterosis were Marglobe X Hisar Arun (22.44%) for acidity, NT-3 X HS-101 (23.59%) for total soluble solids, Pusa Ruby X Money Maker (47.36%) for reducing sugar and sel. -18 X Marglobe (54.41%) for **dry matter content.** Considering most of the traits, the good performing hybrids were Marglobe X HS-101, Marglobe X Hisar Arun, Marglobe X NT-3, Pusa Ruby X Marglobe, NT-3 X HS 101 and may be successfully exploited in hybrid varietal development programme to get high quality hybrids for processing industry. Inbreeding depression was also observed, though it varied from cross to cross.

L4 ANSWER 6 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Combining ability analysis for total solube solids, reducing sugars, **dry matter content** and seeds weight in **tomato**: (**Lycopersicon** esculentum Mill.).

AU Shrivastava, Arun Kumar [Reprint author]

SO Advances in Plant Sciences, (Dec., 1998) Vol. 11, No. 2, pp. 17-22. print.
ISSN: 0970-3586.

PY 1998

AB Nine superior varieties of **tomato** were crossed as per diallel design. Higher 62GCA:62SCA ratio exhibited additive gene effects in both the generations for TSS, reducing sugars, **dry matter content** and seed weight suggesting their exploitation through simple **breeding** methods. Among parents Pusa Ruby was the best combiner for TSS (0.84, 0.70), reducing sugar (0.42, 0.26) and **dry matter content** (1.02, 0.64), while Punjab Chhuhara was the best for low seed weight per fruit (-46.30, -34.48). The best specific combiners for various traits were Pusa Ruby X Money Maker for TSS, reducing sugar, Sel-18 X Marglobe for **dry matter content** and Pusa Ruby X Pusa Early Dwarf for low seed weight per fruit.

L4 ANSWER 12 OF 42 CABA COPYRIGHT 2004 CABI on STN

TI Combining ability analysis for total soluble solids, reducing sugars, **dry matter content** and seeds weight in **tomato.** (**Lycopersicon** esculentum Mill.).

AU Shrivastava, A. K.

SO Advances in Plant Sciences, (1998) Vol. 11, No. 2, pp. 17-22. 8 ref.
ISSN: 0970-3586

PY 1998

AB Nine superior varieties of **tomato** were crossed in a diallel fashion. Higher GCA:SCA ratio exhibited additive gene effects in both the

generations for fruit total soluble solids (TSS), fruit reducing sugars content, fruit **dry matter content** and seed weight suggesting their exploitation through simple **breeding** methods. Among parents Pusa Ruby was the best combiner for TSS (0.84, 0.70), reducing sugar (0.42, 0.26) and **dry matter content** (1.02, 0.64), while Punjab Chhuhara was the best for low seed weight per fruit (-46.30, -34.48). The best specific combiners for various traits were Pusa Ruby x Money Maker for TSS, reducing sugar, Sel-18 x Marglobe for **dry matter content** and Pusa Ruby x Pusa Early Dwarf for low seed weight per fruit.

L4 ANSWER 15 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI Results of producing early forms of **tomato** with increased **dry matter content.**
AU Kravchenko, V. A.
SO Ovoshchevodstvo i Bakhchevodstvo, (1990) No. 35, pp. 64-67.
Secondary Source: Referativnyi Zhurnal (1990) 9Ya3331
PY 1990
AB An account is given of the use of complex hybridization in **breeding** the new early Soviet varieties Zoren' and Boyan.

L4 ANSWER 19 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI A new **tomato** variety.
AU Kravchenko, V. A.
SO Kartofel' i Ovoshchi, (1984) No. 7, pp. 17-18.
ISSN: 0022-9148
PY 1984
AB The new variety Iskrinka was developed at the Kiev Fruit and Potato Experiment Station. Selected from a cross between Lyubimets Khozyaek ([female]) and **breeding** line 328 ([male]), it is high yielding, short and early. Although it only produces an average of 27 fruits/plant (compared with 41 in the [female] and 79 in the [male] parent), their heaviness (98 g) makes Iskrinka's yields (2.65 kg/plant) higher than those of either parent (2.07 in the [female] and 2.22 in the [male]). The fruits are oval and red with a **dry matter content** of 6.0%. They are suitable for processing to make paste, puree and juice and for preservation by salting. Suitable for outdoor cultivation, Iskrinka gave average yields of 53.2 t/ha in 1977-79 and 56.5 t/ha in 1980-83.

L4 ANSWER 34 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI [Genetic factors in **breeding** for higher **dry-matter content** in **tomato**].
Genetikai tenyezok a paradicsom szarazanyag-tartalmanak novelesere iranyulo nemesitesi munkaban.
AU Farkas, J.; Andrasfalvy, A.; Videki, L.
SO Zoldsegtermesztes, (1972) Vol. 6, pp. 43-50.
Secondary Source: Zoldsegtermesztesi Kutato Intezet Bulletinje (1974) 9, 186, 193
PY 1972
AB **Dry-matter content** was related to yield, fruit size and growth habit (sp or sp+). Determinate plants had a lower content than indeterminate, mainly as a result of the reduced leaf surface area. The presence of the gene Tm for tolerance of tobacco mosaic virus increased the content. The use of wild species as a source of increased **dry-matter content** in varieties for canning reduced yield, fruit size and earliness.

L4 ANSWER 41 OF 42 CABA COPYRIGHT 2004 CABI on STN
TI [**Breeding** and establishing the **tomato** line 54/66].
Crearea liniei de tomate 54/66 si stabilirea agrotehnicii ei.
AU Otvos, Z.
SO Analele Institutului de Cercetari pentru Legumocultura si Floricultura, (1971) Vol. 1, pp. 85-97. 5 ref.
PY 1971

AB Line 54/66 is the result of complex hybridization. It has vigorous, determinate growth, reaching a height of between 80 and 90 cm. The fruit is round with an average weight of 115 g and a **dry-matter content** of between 5 and 6%. It is resistant to Septoria lycopersici and blossom-end rot.

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